

February 12, 2016



U.S. Department
of Transportation

East Building, PHH-30
1200 New Jersey Avenue S.E.
Washington, D.C. 20590

**Pipeline and Hazardous
Materials Safety Administration**

DOT-SP 16016
(FIRST REVISION)

EXPIRATION DATE: January 31, 2020

(FOR RENEWAL, SEE 49 CFR 107.109)

1. GRANTEE: iSi Automotive Austria GmbH
Vienna, Austria

US Agent: iSi North America Inc.
Fairfield, NJ)
2. PURPOSE AND LIMITATIONS:
 - a. This special permit authorizes the manufacture, mark, sale and use of non-DOT cylinders for use in automobile safety systems. This special permit provides no relief from the Hazardous Materials Regulations (HMR) other than as specifically stated herein. The most recent revision supersedes all previous revisions.
 - b. The safety analyses performed in development of this special permit only considered the hazards and risks associated with transportation in commerce. The safety analyses did not consider the hazards and risks associated with consumer use, use as a component of a transport vehicle or other device, or other uses not associated with transportation in commerce.
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR § 173.301, 173.302a and 173.305 in that a non-DOT specification pressure vessel is not authorized, except as provided herein.
5. BASIS: This special permit is based on the application of iSi Automotive Austria GmbH dated December 18, 2015, and submitted in accordance with § 107.109.

February 12, 2016

6. HAZARDOUS MATERIALS (49 CFR 172.101):

Hazardous Material Description			
Proper Shipping Name	Hazard Class/ Division	Identification Number	Packing Group
Air bag inflators, or Air bag modules, or Seat-belt pretensioners	9	UN3268	III
Air bag inflators, or Air bag modules, or Seat-belt pretensioners	1.4G	UN0503	II
Non-flammable, non-toxic gases and mixtures thereof; proper shipping name as specified in § 172.101	2.2	Various	N/A

NOTE: A vehicle safety system or component which contains a quantity of pyrotechnic materials must be classed and approved as provided for in § 173.56 of the HMR. If the pyrotechnic material augments the volume of the gas in the pressure vessel, or in any way enhances the performance of the compressed gas, the device must be tested in the same configuration as when shipped.

7. SAFETY CONTROL MEASURES:

a. PACKAGING - Prescribed packaging is a non-DOT specification pressure vessel meeting the drawings on file with the Approvals and Permits Division (APD):

- (1) The maximum service pressure at 70°F may not exceed 9,572 psig. The minimum test pressure is the pressure of the contents at 200°F. The rated service pressure does not exceed 80 percent of the test pressure and the water volume of each pressure vessel may not exceed one liter.
- (2) Material of construction must conform to all requirements of §178.65(b).
- (3) Manufacturing requirements must conform to all requirements of § 178.65(c), except as follows:

February 12, 2016

- (i) Welding attachments to the cylinder after the 178.65(f)(1) proof test is permitted in accordance with iSi Automotive weld procedures on file with APD. Following the welding, each cylinder must have a leak test performed in accordance with the iSi Automotive Quality Control Plan on file with APD.
- (4) The minimum wall thickness must be such that the wall stress meets the requirements of § 178.65(d).
- (5) Openings and attachments must conform to all requirements of § 178.65(e).
- (6) Each pressure vessel must be equipped with a pressure relief device designed to meet all the requirements for a rupture disk prescribed in the Compressed Gas Association (CGA) Pamphlet S-1.1. The pressure relief device must be capable of preventing rupture of the pressure vessel when subjected to a fire test conducted in accordance with CGA Pamphlet C-14.

b. TESTING -

- (1) Each pressure vessel must be tested as required in § 178.65(f) except that:
 - 178.65(f)(3) The maximum duration of the shift specified in § 178.65(f)(3) may be extended beyond 10 hours at the discretion of the independent inspector.
- (2) The flattening test specified in § 178.65(g) is not required.
- (3) A representative motor vehicle or aircraft safety system, packaged as it would be for shipment, must be activated and no materials other than non-toxic, non-flammable vapors or gases may be expelled from the package.

February 12, 2016

c. MARKING - Each pressure vessel must be durably marked as follows:

DOT-SP 16016/9,572¹

Lot No. xxxxx²

Manufacturer's Name

The Pressure Vessel May Not Be Refilled

¹ Where 9572 represents the design service pressure.

² Where xxxxx is the lot number as appropriate.

NOTE: Each line of these markings may be placed without regard to location or order on the pressure vessel.

8. SPECIAL PROVISIONS:

a. Aircraft transportation is authorized only when not prohibited in the § 172.101 Hazardous Materials Table.

b. In accordance with the provisions of Paragraph (b) of § 173.22a, persons may use the packaging authorized by this special permit for the transportation of the hazardous materials specified in paragraph 6, only in conformance with the terms of this special permit.

c. This special permit is limited to pressure vessels used as components of a vehicle safety system. The pressure vessels are excepted from the requirements of the HMR, Part 178 when the design has been certified by an Independent Inspection Agency, approved under Part 107, Subpart I, as having met all the requirements of this special permit.

d. The Independent Inspection Agency's design certification must include test results and documents related to explosive classification and approval. A copy of the certification must be maintained at each facility where the vehicle safety system is manufactured and by the Independent Inspection Agency for a period of 15 years from the date of completion of the design certification.

e. A person who is not a holder of this special permit, but receives a packaging covered by this special permit, may reoffer it for transportation provided no modification or change is made to the packaging and it is offered for transportation in conformance with this special permit and the HMR.

February 12, 2016

- f. A current copy of this special permit must be maintained at each facility where the package is offered or reoffered for transportation.
 - g. A current copy of this special permit must be maintained at each facility where the packaging is manufactured under this special permit. It must be made available to a DOT representative upon request.
 - h. Each packaging manufactured under the authority of this special permit must be either (1) marked with the name of the manufacturer and location (city and state) of the facility at which it is manufactured or (2) marked with a registration symbol designated by the Office of Hazardous Materials Special Permits and Approvals for a specific manufacturing facility.
 - i. No modifications may be made to the pressure vessel, pyrotechnic components or production vehicle safety system which would affect the performance of the vehicle safety system or its compliance with the requirements of this special permit until such modifications have been reviewed, tested and certified by an Independent Inspector as meeting the requirements of this special permit.
 - j. Except when transported on passenger-carrying aircraft, devices utilizing the non-DOT specification pressure vessel authorized herein are exempt from the requirements of 49 CFR Parts 100-185 when installed in a motor vehicle or in completed vehicle components such as steering columns or door panels.
 - k. Pressure, vessels, components and vehicle safety systems must be transported in strong outside packaging in accordance with § 173.301(a)(9).
9. MODES OF TRANSPORTATION AUTHORIZED: Motor Vehicle, Cargo aircraft, Cargo Vessel, Passenger-carrying aircraft, Rail Freight.
10. MODAL REQUIREMENTS: A current copy of this special permit must be carried aboard each cargo vessel, aircraft or motor vehicle used to transport packages covered by this special permit. The shipper must furnish a copy of this special permit to the air carrier before or at the time the shipment is tendered.

February 12, 2016

11. COMPLIANCE: Failure by a person to comply with any of the following may result in suspension or revocation of this special permit and penalties prescribed by the Federal hazardous materials transportation law, 49 U.S.C. 5101 et seq:

- o All terms and conditions prescribed in this special permit and the Hazardous Materials Regulations, 49 CFR Parts 171-180.
- o Persons operating under the terms of this special permit must comply with the security plan requirement in Subpart I of Part 172 of the HMR, when applicable.
- o Registration required by § 107.601 et seq., when applicable.

Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this special permit must receive training on the requirements and conditions of this special permit in addition to the training required by §§ 172.700 through 172.704.

No person may use or apply this special permit, including display of its number, when this special permit has expired or is otherwise no longer in effect.

Under Title VII of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)—"The Hazardous Materials Safety and Security Reauthorization Act of 2005" (Pub. L. 109-59), 119 Stat. 1144 (August 10, 2005), amended the Federal hazardous materials transportation law by changing the term "exemption" to "special permit" and authorizes a special permit to be granted up to two years for new special permits and up to four years for renewals.

February 12, 2016

12. REPORTING REQUIREMENTS: Shipments or operations conducted under this special permit are subject to the Hazardous Materials Incident Reporting requirements specified in 49 CFR §§ 171.15 Immediate notice of certain hazardous materials incidents, and 171.16 Detailed hazardous materials incident reports. In addition, the grantee(s) of this special permit must notify the Associate Administrator for Hazardous Materials Safety, in writing, of any incident involving a package, shipment or operation conducted under terms of this special permit.

Issued in Washington, D.C.:



for Dr. Magdy El-Sibaie
Associate Administrator for Hazardous Materials Safety

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Pipeline and Hazardous Material Safety Administration, U.S. Department of Transportation, East Building PHH-30, 1200 New Jersey Avenue, Southeast, Washington, D.C. 20590.

Copies of this special permit may be obtained by accessing the Hazardous Materials Safety Homepage at http://hazmat.dot.gov/sp_app/special_permits/spec_perm_index.htm Photo reproductions and legible reductions of this special permit are permitted. Any alteration of this special permit is prohibited.

PO: BMOORE/TG